

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1(Currently Amended). A method of sharing communication reconfiguration information in a communication system, the method comprising:
determining reconfiguration transceive parameters for indicating a reconfiguration of a data communication channel;
determining ack/comply timing information indicating a time at which an ack/comply is expected;
determining an implementation timing information indicating a time in which the reconfiguration transceive parameter should be implemented after the ack/comply is sent;
transmitting the reconfiguration transceive parameters and the ack/comply timing information; and
receiving a physical media dependent ack/comply signal indicating whether reconfiguration transceive parameters are to be implemented, the ack/comply signal being received at a time determined by the ack/comply timing information.

2(Original). The method of claim 1 wherein receiving a physical media dependent ack/comply signal comprises receiving an ack/comply signal that is encoded within a synch symbol.

3(Original). The method of claim 2 wherein the acknowledgment timing information comprises an indication of a specific synch symbol.

4(Original). The method of claim 1 and further comprising implementing the reconfiguration transceive parameters in response to the ack/comply signal.

5. Canceled.

6(Currently Amended). The method of claim ~~[[5]]~~ 1, wherein and further comprising implementing the reconfiguration transceiver parameters in response to the ack/comply signal, the reconfiguration transceiver parameters being implemented at a time in accordance with the implementation timing information.

7(Original). The method of claim 1 wherein the reconfiguration transceiver parameters and the ack/comply timing information are transmitted over an OAM channel.

8(Original). The method of claim 1 wherein the reconfiguration transceiver parameters include information to implement a bit swap.

9(Currently Amended). A method of sharing communication reconfiguration information in a communication system that includes a communication channel, the method comprising:

receiving reconfiguration transceiver parameters ~~[[for]]~~ indicating a reconfiguration of the communication channel;

receiving ack/comply timing information indicating a time at which an ack/comply is expected; and

receiving an implementation timing information indicating a time in which the reconfiguration transceiver parameter should be implemented after the ack/comply is sent; and

transmitting an ack/comply over a lower layer OAM channel, wherein the ack/comply indicating whether the reconfiguration transceiver parameters will be implemented, the ack/comply being transmitted at a time determined by an ack/comply timing information.

10(Original). The method of claim 9 wherein the ack/comply is transmitted within a synch symbol.

11(Currently Amended). The method of claim 9 and further comprising implementing the reconfiguration transceive parameters after transmitting the acknowledgment at a time determined by the implementation timing information.

12 – 13. Canceled.

14(Original). The method of claim 9 wherein the reconfiguration transceive parameters and the ack/comply timing information are received over an OAM channel.

15(Original). The method of claim 9 wherein the reconfiguration transceive parameters include information to implement a bit swap.

16(Currently Amended). A method of sharing communication reconfiguration information in a communication system, the method comprising:

determining reconfiguration transceive parameters for indicating a reconfiguration of a data communication channel;

determining implementation timing information indicating a time at which the reconfiguration transceive parameters should be implemented after an ack/comply is sent;

transmitting the reconfiguration transceive parameters and the implementation timing information; and

receiving ~~an~~ the ack/comply indicating whether reconfiguration transceive parameters are to be implemented; and

if the ack/comply indicates that the reconfiguration transceive parameters are to be implemented, implementing the reconfiguration transceive parameters at a time in accordance with the implementation timing information after the ack/comply is sent.

17(Original). The method of claim 16 and further comprising determining ack/comply timing information indicating a time at which an ack/comply is expected and transmitting the ack/comply timing information.

18(Original). The method of claim 17 wherein the ack/comply being received at a time determined by the ack/comply timing information.

19(Original). The method of claim 16 wherein the ack/comply is received over a lower layer OAM channel.

20(Original). The method of claim 19 wherein receiving an ack/comply comprises receiving an ack/comply that is encoded within a synch symbol.

21(Original). The method of claim 20 wherein the acknowledgment timing information comprises an indication of a specific synch symbol.

22(Original). The method of claim 16 wherein the reconfiguration transceive parameters and the implementation timing information are transmitted over an OAM channel.

23(Original). The method of claim 16 wherein the reconfiguration transceive parameters include information to implement a bit swap.

24(Currently Amended). A method of sharing communication reconfiguration information in a communication system, the method comprising:
receiving reconfiguration transceive parameters for indicating a reconfiguration of a communication channel;
receiving implementation timing information indicating a time at which the reconfiguration transceive parameters are to be implemented after an ack/comply is sent;
transmitting an ack/comply indicating that the reconfiguration transceive parameters will be implemented; and
implementing the reconfiguration transceive parameters at a time in accordance with the implementation timing information after the ack/comply is sent.

25(Original). The method of claim 24 and further comprising receiving ack/comply timing information indicating a time at which an ack/comply is expected, wherein the ack/comply is transmitted at a time determined by an ack/comply timing information.

26(Original). The method of claim 24 wherein the ack/comply is transmitted over a lower layer OAM channel.

27(Original). The method of claim 26 wherein the reconfiguration transceive parameters and the implementation timing information are received over an OAM channel.

28(Original). The method of claim 26 wherein the ack/comply is transmitted within a synch symbol.

29(Original). The method of claim 24 wherein the reconfiguration transceive parameters include information to implement a bit swap.

30(Currently Amended). A communications system, comprising:
a transmitter that transmits data to a receiver over a communication channel;
wherein the receiver determines reconfiguration transceive parameters, ack/comply timing information and implementation delay timing information and provides the reconfiguration transceive parameters, ack/comply timing information and implementation delay timing information to the transmitter;
wherein the transmitter returns an ack/comply to the receiver at a time in accordance with the ack/comply timing information; and
wherein, if the acknowledgment indicates acceptance of the reconfiguration transceive parameters, both the transmitter and the receiver implement the reconfiguration transceive parameters at a time in accordance with the implementation delay timing information after the ack/comply is returned.

31(Original). The communications system of claim 30 where the communication channel comprises a data channel and an OAM channel, the data being transmitted on the data channel.

32(Original). The communications system of claim 31 wherein the transmitter returns the ack/comply over a lower layer OAM channel.

33(Original). The communications system of claim 32 wherein the acknowledgment is part of a synch symbol.

34(Original). The communications system of claim 33 wherein the acknowledgment timing information comprises an indication of a specific synch symbol.

35(Original). The communications system of claim 31 wherein the receiver provides the reconfiguration transceive parameters, ack/comply timing information and implementation delay timing information over the OAM channel.

36(Original). The communications system of claim 30 wherein the communications system is an ADSL system.

3(Original)7. The communications system of claim 30 wherein the reconfiguration transceive parameters include information to implement a bit swap.

38(Currently Amended). A communication device comprising:
means for determining reconfiguration transceive parameters for indicating a reconfiguration of a communication channel;
means for determining ack/comply timing information indicating a time at which an ack/comply is expected;
means for determining an implementation delay timing information indicating a time in which the reconfiguration transceive parameter should be implemented after the ack/comply is sent;

means for transmitting the reconfiguration transceive parameters and the ack/comply timing information; and

means for receiving a physical media dependent ack/comply signal indicating whether reconfiguration transceive parameters are to be implemented, the ack/comply being received at a time determined by the ack/comply timing information.

39(Currently Amended). A communication device comprising:

means for receiving reconfiguration transceive parameters for indicating a reconfiguration of a communication channel;

means for receiving implementation delay timing information indicating a time at which the reconfiguration transceiver parameter should be implemented after an ack/comply is sent;

means for receiving ack/comply timing information indicating a time at which ~~an~~ the ack/comply is expected; and

means for transmitting an ack/comply over a lower layer OAM channel, the ack/comply indicating whether the reconfiguration transceive parameters will be implemented, the ack/comply being transmitted at a time determined by an ack/comply timing information.

40(Currently Amended). A communication system comprising:

means for determining reconfiguration transceive parameters for indicating a reconfiguration of a data communication channel;

means for determining implementation timing information indicating a time at which the reconfiguration transceive parameters should be implemented;

means for transmitting the reconfiguration transceive parameters and the implementation timing information; and

means for receiving an ack/comply indicating that the reconfiguration transceive parameters will be implemented; and

means for implementing the reconfiguration transceive parameters at a time in accordance with the implementation timing information after the ack/comply is sent.

41(Currently Amended). A communication system comprising:
means for receiving reconfiguration transceive parameters for indicating a reconfiguration of the data communication channel;
means for receiving implementation timing information indicating a time at which the reconfiguration transceive parameters are to be implemented after an ack/comply is transmitted;
means for transmitting ~~an~~ the ack/comply indicating that the reconfiguration transceive parameters will be implemented; and
means for implementing the reconfiguration transceive parameters at a time in accordance with the implementation timing information after the ack/comply is transmitted.

42(Currently Amended). An ADSL communication system, comprising:
a receiver configured to that determines
determine reconfiguration transceive parameters for both the receiver and a transmitter and ~~then notifies~~
notify the transmitter of the reconfiguration transceive parameters, the reconfiguration transceive parameters including an indication of a bit swap; ~~wherein the receiver also determines and~~
determine acknowledgement timing information, the acknowledgement timing information comprising a specific reconfigure superframe count in which the transmitter is to ack/comply the reconfiguration transceive parameters if the transmitter chooses to reconfigure after a notification;
an OAM channel for transmitting both the reconfiguration transceive parameters and the specific reconfigure superframe count from the receiver to the transmitter;
a lower layer OAM channel for transmitting an acknowledgment from the transmitter to the receiver if the transmitter chooses to reconfigure, the acknowledgement comprising a synch_flag transmitted at the specific reconfigure superframe count;
a data channel for transmitting data from the transmitter to the receiver; and
wherein both the transmitter and the receiver implement the reconfiguration transceive parameters and utilize said parameters to communicate data over the data channel, the implementation performed in response to the synch_flag after a delay of a

number of superframe count equal to the a superframe delay parameter determined by the receiver.

43(Currently Amended). A method of sharing communication reconfiguration information in a communication system, the method comprising:

- determining reconfiguration transceive parameters for indicating a reconfiguration of a communication channel, wherein the communication system comprises an asymmetric digital subscriber line system and wherein the reconfiguration transceive parameters including information to implement a bit swap;
- determining ack/comply timing information indicating a time at which an ack/comply is expected, the acknowledgment timing information comprising an indication of a specific synch symbol;
- determining implementation timing information indicating a time in which the reconfiguration transceive parameters should be implemented after the ack/comply is sent;
- transmitting the reconfiguration transceive parameters and the ack/comply timing information, wherein the reconfiguration transceive parameters and the ack/comply timing information are transmitted over an OAM channel;
- receiving the reconfiguration transceive parameters;
- receiving the ack/comply timing information;
- receiving the implementation delay information, the reconfiguration parameters, the ack/comply timing information, and the implementation delay information being received over the OAM channel;
- transmitting a PMD layer ack/comply signal over a lower layer OAM channel, the ack/comply signal indicating whether the reconfiguration transceive parameters will be implemented, the ack/comply being transmitted at a time determined by the ack/comply timing information, the ack/comply being encoded within a synch symbol;
- receiving over the lower layer OAM channel the ack/comply; and

implementing the reconfiguration transceive parameters, the reconfiguration transceive parameters being implemented at after a delay of a time in accordance with the implementation timing information after the ack/comply is received.

44(New). A method of reconfiguring connection parameters of a communication channel between a transmitting modem and a receiving modem, the method comprising:
at the transmitting modem, receiving an online reconfiguration request for reconfiguring the connection parameters of the communication channel from the receiving modem, wherein the request includes at least reconfiguration parameters, a sync flag superframe number (SFlgSf), and a superframe reconfiguration delay number (SfDly);
acknowledging the request by transmitting a sync flag in a superframe having a count equal to the SFlgSf;
using the reconfiguration parameters effective a superframe whose count is equal to $\{(SFlgSf + 1 + SfDly) \text{ modulo } 256\}$, wherein the SfDly is a non-negative integer.

45(New). A method according to claim 44, wherein the transmitting and receiving modems are ADSL modems, and the SfDly is less than or equal to four.